

WHAT IS CLAIMED IS:

1. A microimpactor system comprising a fluid conduit having a plurality of spaced-apart rows of microimpactors arranged in the fluid conduit substantially transverse to a main direction of flow of fluid through the fluid conduit, wherein each of said rows of microimpactors is formed by a microimpactor sheet having a plurality of openings that define in each such sheet at least one line of two or more microimpactors.
2. The microimpactor system of claim 1, wherein microimpactors in at least two successive rows are offset from each other.
3. The microimpactor system of claim 1, wherein microimpactors in successive rows are spaced apart at a distance defined by one or more spacer sheets interposed between the successive rows of microimpactors.
4. The microimpactor system of claim 1, wherein the fluid conduit includes a fluid inlet and a fluid outlet.
5. The microimpactor system of claim 1, wherein the microimpactor system further comprises a means for moving fluid through the system.
6. The microimpactor system of claim 1, further comprising means for applying an electrical charge to at least one microimpactor sheet.
7. The microimpactor system of claim 6, further comprising means, upstream from said microimpactor sheets for applying an electrical charge to particles borne in a fluid transported through the fluid conduit.
8. The microimpactor system of claim 1, wherein at least one of said microimpactor sheets is removable and replaceable.

9. The microimpactor system of claim 1, wherein at least two of said microimpactor sheets are made of different materials.

5 10. A method of forming an array of microimpactor surfaces within a fluid conduit, comprising positioning two or more microimpactor sheets each having openings that define in each microimpactor sheet at least one line of two or more microimpactors, the microimpactor sheets being positioned such that said microimpactors are oriented transverse to a main direction of flow of a fluid through
10 the fluid conduit.